

PRODUCT DATASHEET

I-FLEX HP FLANGE INSULATING SET



The Flexitallic I-Flex Flange Insulating Set (HP) is comprised of an Insulating Gasket, Insulating Sleeves, Insulating Washers and Metal Washers.

The Insulating Gasket has a grooved metal core with unique profile and Sigma® 500 spacer ring and Sigma® 500 facings. The facing material is not limited to SIGMA® 500.

Colour: Blue

Service:

The Flexitallic I-Flex gasket is capable of effecting a seal over a wide range of applied stress making the product suitable for use in an extensive range of standard and non-standard bolted connections. Soft compressive facing materials and a relatively wide sealing face make the product more robust with regard to use on a wide range of flange sealing face conditions when compared with 'O' Ring and/or spring energised based gasket insulation technology.

Operational pressure range:
Maximum flange pressure class:
 2500 Class ASME 16.5
 EN1092 PN400, ASME 16.47
 5000 Class API 6A

Operational temperature range:
 From -40°C to 150°C

The SIGMA® 500 material is suitable for sealing all chemicals across the whole pH range (0-14) with the exception of molten alkali metals, fluorine gas or hydrogen fluoride.

The metallic core of the Insulating Gasket is selected to suit the application. If required, NACE compliance metals can be supplied.

The insulating gasket and washers have been designed and developed for use in pipelines that require cathodic protection. This special design exceeds the requirements of 'Saudi Aramco Std. 02-SAMSS-010'.

Sealing performance for high pressure flanged connections ie. ASME B16.5 class 2500 pressure systems, has been independently verified for ambient and maximum temperature / pressure combinations. Additional information is available on request.

This Data Sheet refers to the material as supplied. The information contained herein is given in good faith, but no liability will be accepted by the Company in relation to same.

We reserve the right to change the details given on this Data Sheet as additional information is acquired. Customers requiring the latest version of this Data Sheet should contact our Applications Engineering Department.

The information given and, in particular, any parameters, should be used for guidance purposes only. The Company does not give any warranty that the product will be suitable for the use intended by the customer.

Insulating Gasket Properties:

Core Thickness	2.5mm to 4mm
Facing Thickness	0.75mm (x2)
Gasket Factor (m)	2.00
Min Design Seating Stress (y)	2,500 psi
Minimum Temperature	-200°C
Maximum Temperature	260°C
Dielectric Strength (ASTM D149a)	9.8 kV/mm

Note: The above properties apply to the gasket only. The insulating set is comprised of many different materials that need to be considered, and is dependent on the application.

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Insulating Sleeves / Tubes – Thermal / Dielectric Properties:

G10	– Temperature Range	150°C
G10	– Dielectric Strength	19.7 kV/mm
Mylar	– Maximum Temperature	149°C
Mylar	– Dielectric Strength	15.8 kV/mm
Phenolic	– Temperature Range	100°C
Phenolic	– Dielectric Strength	19 kV/mm
Nomex	– Maximum Temperature	232°C
Nomex	– Dielectric Strength	19.7 kV/mm

Insulating Washers - Thermal / Dielectric Properties:

G10	– Temperature Range	150°C
	– Dielectric Strength	19.5 kV/mm
Phenolic	– Temperature Range	100°C
	– Dielectric Strength	19 kV/mm

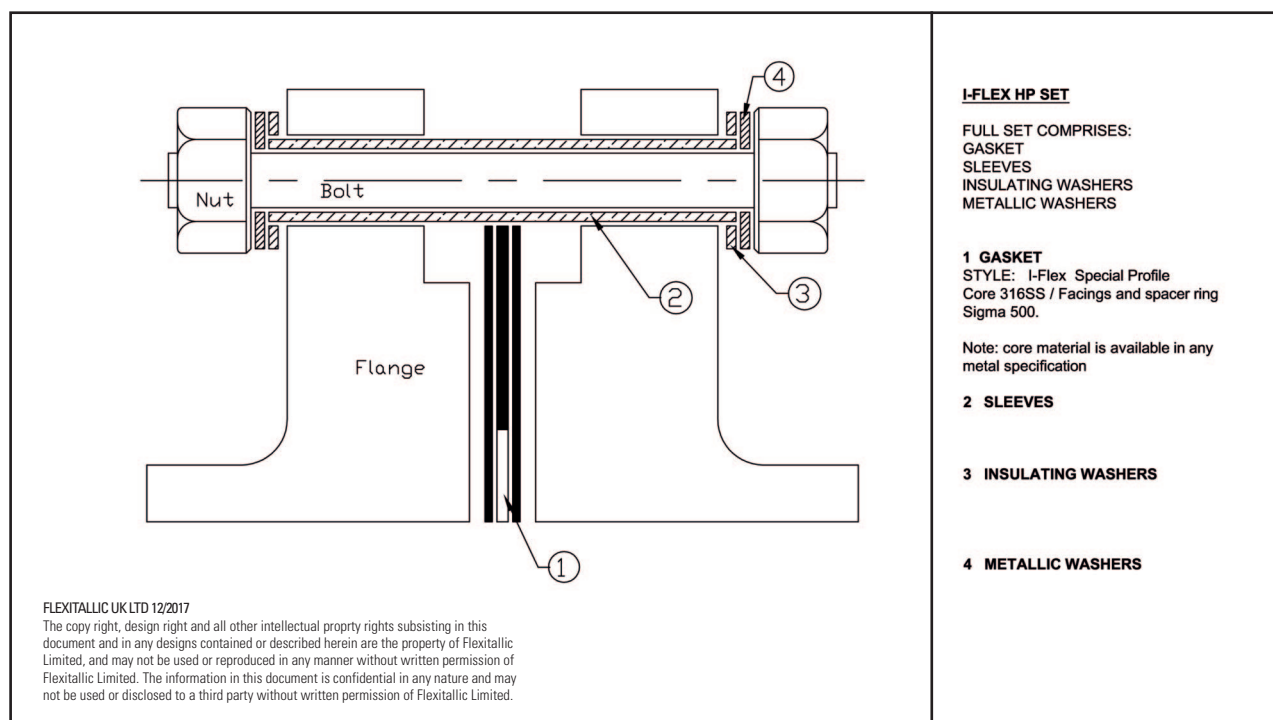
(Note: We would offer G10 as standard if not specified by the customer)

Metallic Backing Washers:

Stainless Steel 316 (as standard)	3mm thk.
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Note: Other metals can be provided to suit the application.

General Assembly:



The Standard I-Flex Set comprises of the following components:

I-Flex Insulating Gasket	– up to 2500 class ASME 16.5	
	– 5000 class API 6A	1 pc
G10 Insulating Sleeves		1 pc per flange bolt
G10 Insulating Washers		2 pc's per flange bolt
Backing Washers 316SS		2 pc's per flange bolt

Maximum temperature: From -40°C to 150°C

Please contact the Flexitallic Applications Engineering Team when specific operating parameters requires confirmation of appropriate materials.